



**University of Zabol**

Graduate School  
Faculty of Veterinary  
Department of Pathobiology

**The Thesis Submitted for the Degree of masters  
in the field of Bacteriology**

**The Prevalence of *Veillonella Spp.* In Children Under 10 Years  
Old and Dogs Under 5 Years Old Associated With Periodontal  
Disease in Sistan and Zahedan.**

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## **Abstract**

**The mouth has a moist environment with a relatively constant temperature between 34 and 36 degrees Celsius, a neutral pH, neutral PH, and due to numerous anatomical structures, it contains many types of microorganisms. The genus Veillonella has been reported frequently in the oral cavity of children and dogs and is associated with periodontal disease. The purpose of this study is to evaluate the prevalence of Veillonella in the saliva of children under 10 years old and dogs under 5 years old with periodontal disease in Sistan and Zahedan region. In this study, 200 saliva samples, including 100 saliva samples from children under 10 years old and 100 saliva samples from dogs under 5 years old with periodontal disease, that they did not have any previous treatment, history of recent or chronic systemic disease, or receiving antibiotics in the 3 months before visiting the dental and veterinary clinic, were evaluated in the laboratory for Veillonella isolation, and the presence of Veillo-rpoB gene was checked by PCR method. The results of this study show the presence of Veillonella genus in some of the studied samples. The results indicate the presence of Veillonella genus only in the saliva of 2 children. Therefore, the presence of Veillonella genus in human samples was found to be 2% by molecular method. Oral bacteria are organized as bio-films that adapt to any part of the mouth (e.g. on the tongue and teeth) as a result of changes in oxygen partial pressure, availability of nutrients, and so on. The dominant bacteria in saliva are bacteria that are isolated from the oral tissues. Also, all epithelial surface cells become desquamated and release adherent bacteria into the saliva.**

**Key words:** Children, Periodontal, Saliva, Sistan, *Veillonella* Spp, Zahedan